

Exercises

1. Build a program in Java which calculates the following using the Math class:
 - a) $25.39^{3.12}$
 - b) $\log_{10}12.48$
 - c) $\sqrt{8025.73}$
 - d) $\sin 93^\circ$
 - e) $\cos 76^\circ$
 - f) $\tan 60^\circ$
2. Write a complete program `WazzuAdmit` with the behavior shown below. Use the `Scanner` to read user input for a student's grade point average and SAT exam score. A GPA of 1.8 or an SAT score of 900 or above (or both) will cause the student to be accepted; anything less will cause him/her to be rejected.

```
Washington State University admission program
What is your GPA? 3.2
What is your SAT score? 1280
You were accepted!
```

3. **HarmonicSum (Loop):** Write a program called **HarmonicSum** to compute the sum of a harmonic series, as shown below, where $n=50000$. The program shall compute the sum from *left-to-right* as well as from the *right-to-left*. Obtain the difference between these two sums and explain the difference. Which sum is more accurate?